



# भारत का राजपत्र

## The Gazette of India

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

सं० 14] नई दिल्ली, शनिवार, अप्रैल 7, 1979 (चैत्र 17, 1901)  
No. 14] NEW DELHI, SATURDAY, APRIL 7, 1979 (CHAITRA 17, 1901)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके  
Separate paging is given to this Part in order that it may be filed as a separate compilation.

### भाग III--खण्ड 2 PART III--SECTION

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
Notifications and Notices issued by the Patent Office relating to Patents and Designs

THE PATENT OFFICE  
PATENTS AND DESIGNS  
Calcutta, the 7th April 1979

#### CORRIGENDA

(1)  
In the Gazette of India, Part III, Section 2 dated the 29th April 1978, under the heading "COMPLETE SPECIFICATIONS ACCEPTED".

(1)  
In page 307, column 2, line 11, against No. 144324—  
for 'preparation'  
read 'preparing'

(2)  
In page 308, column 1, line 10, against No. 144326—  
for 'Patent Office, Calcutta'  
read 'Patent Office, Delhi Branch'

(3)  
In page 312, column 1, line 1, against No. 144346—  
for 'Class 32F1a & c'  
read 'Class 32F2a, C'

(4)  
In page 313, column 1, line 7, against No. 144350—  
for 'Patent Office, Calcutta'  
read 'Patent Office, Delhi Branch'

(5)  
In page 314, column 2, line 6, against No. 144359—  
for 'SAMPHOR'  
read 'CAMPHOR'

1-7GI/79

(6)  
In page 320, column 2, after line 8, against No. 144386—  
Insert "Appropriate office for opposition proceedings  
(Rule 4, Patents Rules 1972) Patent Office, Calcutta".

(7)  
In page 324, column 2, line 13, against No. 144403—  
for 'Patent Office, Calcutta'  
read 'Patent Office, Delhi Branch'.

(8)  
In page 324, column 2, line 13, against No. 144404—  
for 'Patent Office, Calcutta'  
read 'Patent Office, Delhi Branch'.

(2)  
In the Gazette of India, Part III, Section 2, dated the 6th May 1978, under the heading "COMPLETE SPECIFICATIONS ACCEPTED".

(1)  
In page 336, Column 1, line 12, against No. 144412—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(2)  
In page 351, column 2, line 11, against No. 144479—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(4)  
In the Gazette of India, Part III, Section 2, dated the 17th June 1978, under the heading "COMPLETE SPECIFICATIONS ACCEPTED".

(287)

(1)

In page 459, column 1, line 12, against No. 144682—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(4)

In the Gazette of India, Part III, Section 2, dated the 1st July 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 488, column 1, after line 9, against No. 144748.  
Insert 'Appropriate office for opposition proceedings  
(Rule 4, Patents Rules 1972) Patent Office, Calcutta'.

(5)

In the Gazette of India, Part III, Section 2, dated the 8th July 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 500, column 1, line 1, against No. 144783—  
for 'Application No. 906/Cal/76'.  
read 'Application No. 906/Cal/75'.

(6)

In the Gazette of India, Part III, Section 2, dated the 15th July 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 511, column 2, line 10, against No. 144814—  
for '1 claim'.  
read '14 claims'.

(7)

In the Gazette of India, Part III Section 2, dated the 22nd July 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 530, column 1, below Application No. 1773/Cal/75, filed September 1975.

Insert 'Appropriate office for opposition proceedings  
(Rule 4, Patents Rules, 1972) Patent Office, Calcutta'.

(8)

In the Gazette of India, Part III Section 2, dated the 12th August 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 581, column 1, line 8, against No. 145010—  
for 'No. 1970/Mas/76'.  
read 'No. 170/Mas/76'.

(2)

In page 581, column 1, line 9, against No. 145011—  
for 'No. 1686/Cal/75'.  
read 'No. 686/Cal/75'.

(3)

In page 583, column 1, line 12, against No. 145020—  
for 'Patent Office, Delhi Branch'.  
read 'Patent Office, Calcutta'.

(4)

In page 583, column 2, line 13, against No. 145022—  
for 'Patent Office, Delhi Branch'.  
read 'Patent Office, Calcutta'.

(5)

In page 583, column 2, line 9, against No. 145023—  
for 'Patent Office, Delhi Branch'.  
read 'Patent Office, Calcutta'.

(6)

In page 587, column 2, in line 1, against Class 32F1 & F3b—

Insert No. '145039' at the right hand top corner.

(9)

In the Gazette of India, Part III Section 2, dated the 21st October 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 762, column 1, line 11, against No. 145474—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(10)

In the Gazette of India, Part III Section 2, dated the 25th November 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 820, column 2, line 5, against No. 145655—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(11)

In the Gazette of India, Part III, Section 2, dated the 2nd December 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 832, column 2, line 11, against No. 145688—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(12)

In the Gazette of India, Part III, Section 2, dated the 16th December 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 858, column 2, line 12, against No. 145758—  
for 'Patent Office, Calcutta'.  
read 'Patent Office, Delhi Branch'.

(2)

In page 859, column 1, line 16, against No. 145761—  
for 'Patent Office, Calcutta'.  
for 'Patent Office, Calcutta'.

(13)

In the Gazette of India, Part III Section 2, dated the 30th December 1978, under the heading 'COMPLETE SPECIFICATIONS ACCEPTED'.

(1)

In page 880, column 1, line 12, against No. 145809—  
for 'Patent Office, Bombay Branch'.  
read 'Patent Office, Delhi Branch'.

#### APPLICATION FOR PATENTS FILED AT THE HFAD OFFICE

The dates shown in crescent brackets are the dates claimed under Section 135 of the Act.

1st March, 1979

186/Cal/79. Berol Kemi AB. Froth flotation process of phosphate containing minerals and compound.

187/Cal/79. Akzo NV. Fibre structures of split multicomponent fibres.

188/Cal/79. Nicholas International Limited. Aminoaldehyde derivatives. (March 3, 1978).

189/Cal/79. Concast A.G. Process for continuous casting of metal.

2nd March, 1979

190/Cal/79. Societe Des Produits Nestle S.A. Stabilizing lactobacilli.

191/Cal/79. National Research Development Corporation. Sorption of gases. (March 3, 1978).

192/Cal/79. The Carborundum Company. Granular activated carbon manufacture from sub-bituminous coal treated with dilute inorganic acid direct activation method.

193/Cal/79. Monsanto Company. Effecting condensation of nitrohaloarene and formyl derivative of a primary aromatic amine with alkali metal hydroxide.

194/Cal/79. Institut Chernoi Metallurgii. Method for treating molten iron in vessels.

195/Cal/79. Fairchild Camera and Instrument Corporation. Strip carrier and automated technique for applying polarizer material to liquid-crystal displays.

196/Cal/79. Prof. Dr. Ing. W. S. Wolfgang Lubrich. A device for handling conveyor belt garlands.

3rd March, 1979

197/Cal/79. Monsanto Company. Making nitrodiarylamines from formyl derivatives of aromatic amines and nitrohaloarenes by admixing with certain aqueous salt solutions.

198/Cal/79. Egyesult Izzolampa ES Villamossagi Reszvenytársasag. Electrical discharge tube, preferably a high-pressure sodium-vapour lamp and metal halogen lamp to be operated in open air, provided with a device for influencing the heat distribution within the discharge space.

199/Cal/79. Maschinenfabrik Augsburg-Nurnberg Aktiengesellschaft. Internal combustion engine.

200/Cal/79. Minnesota Mining and Manufacturing Company. Low friction, abrasion resistant coating for transparent film.

201/Cal/79. Hitachi, Ltd. Zinc-oxide surge arrester.

5th March, 1979

202/Cal/79. Dr. Asit Kumar Datta, Samaresh Chandra Dey and Bijoli Prasad Sinharoy. Improvements in or relating to motor control systems.

203/Cal/79. Dr. Asit Kumar Datta, Bijoli Prasad Sinharoy, Samaresh Chandra Dey and Rabi Prakash Das. Improvement in or relative to thyristor chopper controlled DC system for running and braking of DC series motor.

204/Cal/79. Bunker Ramo Corporation. Electrical socket contact.

205/Cal/79. Bunker Ramo Corporation. Contact insertion tool and unitary control mechanism therefor.

206/Cal/79. Gildemeister-Devlieg System-Werkzeuge GMBH. Boring tool.

207/Cal/79. Societe Civile Particuliere Alsacienne et Dauphinoise. A water pumping device using any source of energy.

208/Cal/79. Yokogawa Electric Works, Ltd. Capacitor-type differential pressure transmitter.

209/Cal/79. Executive Director, Fertilizer (Planning and Development) India Ltd. Process for the manufacture of sulphuric acid by a double conversion and double absorption process.

6th March, 1979

210/Cal/79. Monsanto Company. Processes.

211/Cal/79. The Dow Chemical Company. Halomethyl substituted dialkoxypyridines, fungicidal composition, and method for protecting plants from fungal disease.

212/Cal/79. The Dow Chemical Company. Ethers of 4-halomethyl-pyridines, fungicidal composition, and method for protecting plants from fungal disease.

213/Cal/79. Petroleo Brasileiro S.A.—Petrobras. Process for obtaining gaseous streams rich in ethene.

214/Cal/79. RTE Corporation. Improved range of water solubility in hydrocarbon oils.

7th March, 1979

215/Cal/79. Nippon Steel Corporation. Process for producing a grain-oriented silicon steel sheet.

216/Cal/79. Mitsubishi Denki Kabushiki Kaisha. Lightning arrester device.

217/Cal/79. Mitsubishi Denki Kabushiki Kaisha. Lightning resistive device in aerial power transmission system.

218/Cal/79. Sumitomo Chemical Company, Limited. A process for producing gefarnate-containing solid preparations.

219/Cal/79. Societe Technique Pour L'Industrie Nouvelle S.A. Artificial respiration device.

220/Cal/79. L. Oinstein. A method of controlling the relative humidity in a soil environment and apparatus for accomplishing same.

221/Cal/79. Bochumer Eisenhütte Heintzmann GmbH & Co. Method of cutting mineral at a miner's work face and combined cutting tool for practicing the method.

#### ALTERATION OF DATE

146261. } Ante-dated 9th March, 1976.  
1030/Cal/78.

146276. } Ante-dated 7th April 1977.  
105/Cal/78.

#### COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in the opposing the grant of patents of any of the applications concerned may at any time within four months of the date of this issue or on form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months given notice to the Controller of Patents at the appropriate office as indicated in respect of each such application, on the prescribed form 15 of each opposition. The written statement of opposition should be filed along with the said notice or within one month from its date as prescribed in Rule 35 of the Patents Rules, 1972.

"The classifications given below in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Shankar Ray Road, Calcutta in due course. The price of each specification is Rs. 2/- (postage extra is sent out of India). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with the photo copies of the drawings, if any can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office.

## CLASS 107K.

146251.

Int. Cl.-F01I 31/16.

INTERNAL COMBUSTION ENGINES HAVING ADJUSTABLE VALVE GEAR.

*Applicant & Inventor*: BOHDAN KOSTECKI, OF 21, BATH ROAD, MORLEY, W.A. 6062, AUSTRALIA AND EUGENE KOSTECKI, OF 31 HULL ROAD, MORLEY, W.A. 6062, AUSTRALIA.

Application No. 812/Cal/76 filed May 10, 1976.

Complete Specification left August 3, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 8 Claims

An internal combustion engine having a valve and a mechanism for controlling valve operation comprising means for actuating said valve, a non-interchangeable cam for controlling said valve actuating means, a pair of pivotable timing lever arms with inner ends interposed for contact engagement by the cam for control of said valve actuating means, and two separate adjustment control means disposed for engagement with the outer end of each said timing lever arm for adjustment of the position of the respective arm during operation of the engine.

## CLASS 40G &amp; 128E &amp; G.

146252.

Int. Cl.-A61n 5/00.

TELE THERAPY EQUIPMENT.

*Applicant & Inventor*: SAM SOHRABJI MOTAFFRAM, OF ELPRO INTERNATIONAL LTD., 7 RED CROSS SARANI, CALCUTTA-1, WEST BENGAL, INDIA.

Application No. 1218/Cal/76 filed July 8, 1976.

Complete specification left August 30, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 12 Claims

A cobalt 60 Teletherapy unit for radiation treatment of cancer comprising a source head, containing the radio active cobalt means for causing the operation of the source drawer in the said source head, means for positively connecting the source drawer to the pneumatic system employed in causing the operation of the source drawer, said system being referred to as the docking system as her in defined and means for adjustment of the source drawer wherein the source head is fabricated from a series of segmental steel plates welded to each other to form a shell having a shape approximating a rugby ball, a metal stainless steel pipe within the same, said pipe extending out of the shell, a source drawer within said pipe, said source drawer being slidably fitted therein, the space between said pipe and said shell being filled with lead; and there are provided pneumatic means for moving the source drawer to a position coincident with an opening for radiation and means for supplying compressed air on either side of the piston within a pneumatic cylinder by a plurality of valve means the piston rod being coupled to the source drawer; and wherein means for loading (docking) the source drawer to the pneumatic means is fitted between the piston rod of the pneumatic cylinder and the source drawer through a coupling rod of the said source drawer; and wherein adjustment for the source head include a floating plate which is secured to the source head through its flange, said floating plate being located within the front end or mouth of the L arm and through bolts the adjustment of the floating plate and consequently that of the source head, complete and precise parallelity of the source drawer axis with the axis of rotation is achieved.

## CLASS 27F.

146253.

Int. Cl.-F01d 9/00.

A BOX GIRDER, IN PARTICULAR FOR A DISMOUNTABLE BRIDGE, COMPOSED OF INTERLOCKING UNITS.

*Applicant*: FRIED. KRUPP GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, OF 103 ALTENDORFER STRASSE, D-4300 ESSEN, FEDERAL REPUBLIC OF GERMANY.

*Inventors*: HUGO SEDLACEK AND GERHARD SEDLACEK.

Application No. 1610/Cal/76 filed September 1, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 9 Claims

A box girder composed of plurality of sections fitted together end-to-end, each section being of triangular or trapezoidal cross section and being fabricated from four separate interlocked wall units, namely a bottom wall unit, two side wall units which extend upwardly and outwardly from the bottom wall unit and a top wall unit connecting the upper ends of the side wall units, and one pair at least of any of said wall units carrying interengageable coupling members which, when brought into interlocking engagement, permit pivotal movement of one wall unit with respect to the other into a coupling position in which forces in all directions between the wall units are contained within the box structure, return pivotal movement of the one wall unit with respect to the other being prevented by another of the wall units.

## CLASS 126B &amp; D.

146254.

Int. Cl.-E21b 49/00.

APPARATUS FOR DETECTING THE LONGITUDINAL DISPLACEMENT OF A CABLE.

*Applicant*: SCHLUMBERGER OVERSEAS S.A., OF VIA ESPANA 200 PANAMA CITY, PANAMA.

*Inventors*: GERARD SEGERAL, JEAN LAVIGNE, JEAN GUIGNARD AND JEAN-MARIE LORRE.

Application No. 1649/Cal/76 filed September 8, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 15 Claims

Apparatus for detecting longitudinal displacement of a cable comprising:

a frame having attachment means for attaching said frame to prevent movement thereof in a direction parallel to the longitudinal displacements of the cable;

first and second guiding means spaced apart along an axis on said frame and adapted to engage first and second sections of the cable respectively for transversally guiding said frame relative to the cable while allowing longitudinal displacements of the cable in a direction parallel to said axis;

first and second wheels on either side of said axis respectively for engaging two opposite sides of the cable tangentially;

means for biasing said first and second wheels toward each other to pinch the cable;

support means mounting said first and second wheels on said frame for allowing the biased wheel to move together substantially freely with respect to said frame in a direction perpendicular to said axis whereby pressure of said wheels on the cable remains substantially independent from transverse displacements of the cable; and

means responsive to the rotation of at least one of said wheels for producing indications of the longitudinal displacements of the cable.

## CLASS 65B3.

146255.

Int. Cl.-H01f 21/00.

TRANSFORMER CONTROL DEVICE.

*Applicant*: INSTITUT ELEKTROSVARKI IMENI E.O. PATONA AKADEMII NAUK UKRAINSKOI SSR, ULITSA GORKOGO 69, KIEV, USSR.

*Inventors* JURY DMITRIEVICH GUPALO, VLADIMIR ALEXANDROVICH NAGAITSEV, VLADIMIR ALEXANDROVICH TROITSKY, NIKOLAI GRIGORIEVICH BELY, DMITRY NIKOLAEVICH PARSHIN AND PAVEL ANDREEVICH ZHINZHNIKOV

Application No 1840/Cal/76 filed October 4, 1976

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta

## 2 Claims

A transformer control device featuring magnetization of at least two elements of a transformer's magnetic circuit, comprising a voltage comparator unit whose input is connected to the transformer, whereas its first output is connected to an input of an intermediate amplifier, and its second output is connected to an input of an additional intermediate amplifier power amplifiers connected to control windings mounted on the magnetized elements of the transformer's magnetic circuit, one of the power amplifiers being connected to the output of the intermediate amplifier, another power amplifier being connected to the output of the additional intermediate amplifier, the intermediate amplifier and the additional intermediate amplifier being placed in series opposition, there being connected resistors in parallel with their inputs

CLASS 107B

146256

Int Cl-F02b 15/00

## AN INTERNAL COMBUSTION ENGINE

*Applicant & Inventor* ACHINTA KUMAR ROY, OF PAITUR BAZAR DIST AND P.O. KAILASHAHAR TRIPURA STATE, PIN 799277 INDIA (2) JASHABANTA GUPTA OF KATAPAR EAST, NORTH TRIPURA KAILASHAHAR INDIA AND MIHIR KUMAR ROY, OF PAITUR BAZAR NORTH TRIPURA, KAILASHAHAR INDIA

Application No 851/Cal/77 filed June 8, 1977

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Calcutta

## 6 Claims

An internal combustion engine operating on detonating gas consisting of hydrogen and oxygen comprising a cylinder and a piston having a plunger disposed within said cylinder in a sealing relationship is characterized by that said cylinder is open to atmosphere at its top and is connected with two reservoirs capable of storing said hydrogen and oxygen through inlet pipes having one way valves fitted therewith, the bottom of said cylinder has a cavity with another one way valve fitted thereto, an exhaust provided at the bottom of said cylinder also fitted with a one way valve and a spark plug is provided on the side wall of the said cylinder in close proximity to the centre such that the mixture of detonating gas admitted in the said cylinder is in the ratio of 2 : 1

CLASS 39L

146257

Int Cl-C22b 3/00

## PROCESS FOR EXTRACTING ALUMINA FROM ALUMINA-CONTAINING ORES

*Applicant* SUMITOMO ALUMINIUM SMELTING COMPANY, LIMITED, OF NO 15 5-CHOME, KITAHAMA, HIGASHI-KU, OSAKA JAPAN

*Inventors* KOICHI YAMADA, TAKUO HARATO TAKAHIRO ISHIDA, YASUMI SHIOZAKI

Application No 1374/Cal/77 filed September 6, 1977

Appropriate office for opposition Proceedings (Rule 4 Patents Rules, 1972) Patent Office, Calcutta.

## 9 Claims

In a process for extracting alumina from alumina containing ores on a two stream system by individually preheating a slurry of alumina containing ores and an aqueous alkali solution each in preheaters of indirect heating, mixing the preheated slurry with the preheated aqueous alkali solution, and extracting alumina from the alumina-containing ores in a

digester which is either heated by direct injection of live steam or is a digester of the heat insulated type, the improvement which comprises preparing the slurry of alumina containing ores having a solid matter concentration of about 20% by weight or higher with water or a diluted aqueous alkali solution having an alkali concentration of not more than about 10 g/l in terms of  $M_2O$ , where M represents Na or K, preheating the slurry, mixing the preheated slurry with an aqueous alkali solution preheated as another stream as a decomposition solution, and extracting alumina from the ores thereby completely or substantially preventing scale formation on an inside surface of the preheater for the slurry

CLASS 39M

146258

Int Cl C01b 25/30

## IMPROVEMENTS IN THE PREPARATION OF SODIUM TRIPOLYPHOSPHATE

*Applicant* EUTECO SPA OF VIA GALIANI 11, MILAN, ITALY

*Inventors* ONORIO GALLISTRU ARTEMIO GELLE RA AND LUCIANO CAVALLI

Application No 1588/Cal/77 filed November 4, 1977

Appropriate office for opposition Proceedings (Rule 4, Patents Rules 1972) Patent Office, Calcutta

## 8 Claims No drawings

A process for the preparation of sodium tripolyphosphate wherein an aqueous solution of phosphoric acid obtained by the wet method is neutralized by addition of an aqueous solution of sodium hydroxide the precipitated impurities are separated from the sodium phosphate solution thus obtained, the sodium phosphate solution is evaporated to dryness and the evaporation residue is calcined characterized in that said aqueous solution of phosphoric acid is neutralized at a temperature not exceeding 85°C, the neutralization product is left to mature at a temperature of from 70° to 85°C for a period of at least one hour before separating said precipitated impurities the sodium phosphate solution is concentrated, if necessary, to bring its sodium phosphate content to a value of at least 40% by weight, with separation of the precipitated impurities thus obtained from the resulting concentrated solution, and the sodium phosphate solution, having a sodium phosphate content of at least 40% by weight, is submitted prior to the evaporation to dryness, to a heat treatment at a temperature of from 100° to 200°C, at boiling point or under, and at atmospheric or superatmospheric pressure, for a period such as to induce substantially complete precipitation of the magnesium compounds dissolved in said sodium phosphate solution so as to give magnesium content not exceeding 250 ppm in the resultant solution the precipitate resulting from this heat treatment being separated from the heat treated solution

CLASS 187A & E<sub>4</sub>

146259

Int Cl-H04l 23/00.

## AN INTRINSICALLY SAFE MAGNETO-SOUND POWERED TELEPHONE

*Applicant* COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-1, INDIA

*Inventors* SATISH CHANDRA SRIVASTAVA BODDU PALLI SITARAMA SHASTRY, SUDHIR KUMAR, RAHINDRA KUMAR SINHA, MOHAN KANT DUTTA AND SHANTI RAM MITRA

Application No 97/Del/77 filed May 11, 1977

Appropriate office for opposition Proceedings (Rule 4 Patents Rules 1972) Patent Office, Delhi Branch

## 5 Claims

An improved intrinsically safe sound powered telephone device comprising receiving and transmitting capsules and a magneto generator wherein the improvement comprises in providing a multivibrator and an amplifier assembly powered by the said generator at calling station and a similar device at the called station, so as to obtain an audio signal at the said called station

CLASS 32F**b**.

146260.

Int. Cl.-C07d 55/24.

## PREPARATION OF MELAMINE FROM UREA.

*Applicant* : STAMICARBON B.V.. OF P.O. BOX 10, GELEEN, THE NETHERLANDS.

*Inventor* : RUDOLF VAN HARDEVELD.

Application No. 20/Del/78 filed January 9, 1978.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

## 18 Claims

A process for preparing melamine by heating urea or thermal decomposition products thereof in the presence of a catalyst and ammonia in a reactor provided with at least two beds of catalyst maintained in a fluidized condition, characterized in that the reaction is effected in a reactor provided with a catalyst-permeable partition dividing the catalyst into a lower fluidized zone maintained at a temperature between 325 and 425°C into which the feedstock is introduced and in which a major proportion is converted into melamine and an upper fluidized zone maintained at a temperature equal to or higher than the temperature in the said lower zone, and wherein the said partition allows a catalyst flow of between 5% and 75% of the catalyst which would flow if the said partition was not present.

CLASS 131B<sub>a</sub>.

146261.

Int. Cl.-B25d 9/02.

## PNEUMATIC PERCUSSION TOOL HAVING A VIBRATION DAMPENED HANDLE.

*Applicant* : CATERPILLAR TRACTOR CO., OF PEORIA, ILLINOIS, UNITED STATES OF AMERICA.

*Inventor* : DANIEL BRONSON SHOTWELL.

Application No. 1030/Cal/78 filed September 19, 1978.

Division of Application No. 417/Cal/76 filed March 9, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 4 Claims

A shock absorbing and vibration damping insert for location between the handle and percussion mechanism of a portable pneumatic percussion tool comprising a cushion member of resilient material; first and second coupling members bonded to opposite sides of the cushion member, the coupling and cushion members each having an air supply passage extending therethrough; a one-piece resilient element completely lining the air supplying passage of the coupling and cushion members; at least one of the coupling members having a groove in its face remote from the cushion member and surrounding the end of the air supply passage, and the resilient element having a circumferential flange disposed in the groove and having an outer face beyond the adjacent outer face of the coupling member to provide a sealing gasket.

## CLASS 98-I.

146262.

Int. Cl.-F24j 3/02.

## A SOLAR COLLECTOR.

*Applicant* : BHARAT HEAVY ELECTRICALS LIMITED, ESNP DIVISION, AT 7TH FLOOR, ANSAL BHAVAN, 16 KASTURBA GANDHI MARG, NEW DELHI-110001, INDIA.

*Inventors* : DR. RAJENDER KUMAR SURI AND MR. RANBIR CHANDRA SAXENA.

Application No. 569/Cal/76 filed March 31, 1976.

Complete Specification left May 23, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

## 9 Claims

A solar collector consisting of a main frame, support means for supporting glass plate, means for supporting absorber panel and insulation pack, characterized in that the main frame is formed of a light extruded aluminium frame, having integrally formed arm/s at its upper end thereof for receiving and supporting one glass plate for low temperature use or two glass plates (a first and a second) for high temperature use, said absorber panel having been arranged below the glass plate/s, said insulation pack held in a spaced relationship below the absorption panel, said absorption panel and said insulation pack being suitably held by said main frame, said absorber panel having in its plenum chambers means for deflecting and evenly distributing the liquid flowing in through the inlet end and flowing out through the outlet end thereof.

## CLASS 71A &amp; F.

146263.

Int. Cl.-F02b 3/02, F02t 5/30, E21c 37/12, 23/00, E21b 43/26.

## METHOD AND DEVICE FOR BREAKING A HARD MATERIAL.

*Applicant* : ATLAS COPCO AKTIEBOLAG, AT NACKA, SWEDEN.

*Inventors* : ERIK VOLMAR LAVON AND LEVI JOHANES KARLFORS.

Application No. 1674/Cal/76 filed September 13, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 16 Claims

A method of breaking a hard material, such as rock, wherein at least one hole is drilled in the material to be broken and a blasting charge is loaded in the hole whereupon the charge is initiated, characterized in that the initiation of the charge as well as necessary stemming and when required compression of the charge is carried out by means of relatively incompressible fluid, such as water, which is accelerated and directed into the hole (12) in a manner as hereinbefore described, in form of a collected quantity which fills the hole, so that the charge is initiated by means of the pressure pulse which arises in said quantity of fluid when the latter impacts the charge.

## CLASS 33A.

146264.

Int. Cl.-C21d 1/00.

## APPARATUS FOR THE PRODUCTION OF CELLULAR METAL.

*Applicant* : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

*Inventors* : GUNDURAO NAGARAJA RAO, SAMARENDRA KUMAR SINHA.

Application No. 1754/Cal/76 filed September 23, 1976.

Complete Specification left September 22, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

## 5 Claims

An apparatus for the production of cellular metal of interconnecting voids by application of pressure using foundry technique which comprises a pressure vessel, cylindrical in shape made from steel sheet welded or riveted and lined on the inside with refractory material (such as silicon) carbide, a lid with an opening at the centre to which is attached a bent tube which in turn is attached to pressure regulating valves and a pressure gauge, the lid so designed is used to cover the top of the vessel, a perforated bottom closed tube is screwed on to the inside of the opening in the lid, and a clamping system for the top cover to produce an air tight joint with the shell.

## CLASS 33A.

146265.

Int. Cl.-B22d 11/06.

## A MOULD FOR CONTINUOUSLY CASTING STEEL BILLET AND BLOOM SECTIONS.

*Applicant* : CONCAST A.G., OF TODISTRASSE 7, 8027 ZURICH, SWITZERLAND.

*Inventor* : MARKUS SCHMID.

Application No. 208/Cal/77 filed February 14, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 7 Claims

A mould for the continuous casting of polygonal and preferably square steel billet and bloom sections, comprising an upper and a bottom portion which latter portion has independently movable walls attached to the upper portion in a manner permitting movement about hinges extending crosswise of the direction of movement of the continuous casting spring being provided which urge the walls towards the interior of the mould, characterised in that the hinge (19, 45) associated with each wall (15, 44) is itself movable in a direction perpendicular to the side (9) of the wall (15, 44) facing the interior (11, 41), of the mould.

## CLASS 98-I.

146266.

Int. Cl.-F24j 3/02.

## A SOLAR HEAT ORENERGY COLLECTOR.

*Applicant* : BHARAT HEAVY ELECTRICALS LIMITED, FSNP DIVISION, AT 7TH FLOOR, ANSAL BHAVAN, 16, KASTURBA GANDHI MARG, NEW DELHI-110001, INDIA.

*Inventors* : DR. RAJINDER KUMAR SURI AND MR. SURESH CHANDRA.

Application No. 111/Del/77 filed May 23, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

## 5 Claims

A solar heat or energy collector comprising a frame for supporting at the upper end thereof at least one glass plate, at least one absorber panel disposed below of and in a spaced relationship to said glass plate, and insulating means supported by said frame and disposed below of said absorber panel and also additionally on the sides thereof as described in parent patent application No. 569/Cal/76 (Serial No. 146262) characterized in that said absorber panel consists of rolled aluminium boned sheets having a plurality of pass ages with fins provided therebetween.

CLASS 83A<sub>1</sub> & 195D.

146267.

Int. Cl.-A01j 5/08, F01l 13/00.

## IMPROVEMENTS IN OR RELATING TO MILKING MACHINES.

*Applicant* : IYOTI LIMITED, OF INDUSTRIAL AREA, P.O. CHEMICAL INDUSTRIES, BARODA 390 003, STATE OF GUJARAT, INDIA.

*Inventors* : KANNAIYALAL MANGALADAS PATEL AND ANANT NARHAR NIMKAR.

Application No. 198/Bom/76 filed June 26, 1976.

Complete Specification left May 7, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

## 7 Claims

A milking machine comprising (a) a plurality of twin chambered teat cups, the two chambers being separated by a flexible liner characterised in that, the inner chamber of the teat cup is connected through a milk manifold to a constant suction source through an airtight suction chamber

and the outer chamber of the teat cup is connected through an air manifold to a source generating alternate suction and compression; (b) a control valve system providing the said source for constant suction and the said source for alternate suction and compression to the said inner and outer chamber respectively, the said control valve system being coupled to a vacuum pump; (c) the said air tight suction chamber in which the milk squeezed out of teats placed in the inner chamber of the teat cups is drawn and retained; (d) the said air and milk manifolds provided along pipelines connecting the said chamber in the teat cups to their respective source to ensure the maintenance of equal vacuum pressure in all the teat cups; (d) a prime mover for the said vacuum pump.

## CLASS 130F &amp; 141D.

146268.

Int. Cl.-C22b 1/00, 45/00.

## PROCESS FOR OBTAINING MAGNESITE FROM GANGUF MINERALS.

*Applicant* : FINANCIAL MINING—INDUSTRIAL AND SHIPPING CORPORATION, SIKELIAS, 18-20, ATHENS, 404, GREECE.

*Inventors* : THEODOR GAMBOPOULOS, CHARALAMBOS IOSIFAKIS AND ANTONIOS FRANGISKOS.

Application No. 1250/Cal/76 filed July 12, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 11 Claims. No drawings

A process for obtaining magnesite from its serpentine gangue comprising the steps of conditioning the gangue with reagent to increase the hydrophobicity of the serpentine gangue, the said reagent consisting of a mixture of ammonium salt and oil such as hereinbefore defined, mixing the conditioned ore with water, and separating the magnesite from the serpentine gangue at a water-air interface without frothing.

## CLASS 113B &amp; 129G &amp; K &amp; P.

146269.

Int. Cl.-F23q 2/06.

## METHOD FOR PRODUCING ABRASIVE SPARKING WHEELS FOR CIGARETTE LIGHTERS AND THE LIKE AND THE WHEEL SO PRODUCED.

*Applicant* : DOVER CORPORATION, AT 277 PARK AVENUE, NEW YORK, NEW YORK, UNITED STATES OF AMERICA.

*Inventor* : EARL WILLIAM BRINKMAN.

Application No. 359/Cal/77 filed March 11, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 8 Claims

A method of producing sparking wheels, comprising forming by conventional machine tool on the periphery of a circular wheel blank a plurality of spaced, helical lands which extend diagonally between opposite sides of the blank, and thus forming the lands on said blank into a plurality of angularly spaced teeth, said tooth forming step including forcing the blank coaxially into the bore of a broaching tool which cuts spaced notches in said lands, and characterized in that while the said blank is in the bore of said broaching tool, a slight relative rotation of the tool is effected between said blank and said tool to upset the teeth formed by the lands between said notches.

CLASS 14D<sub>1</sub>.

146270.

Int. Cl.-B01k 3/06.

## METHOD OF MAKING A PRESSED NICKEL-FLUORIDE.

*Applicant* : YARDNEY ELECTRIC CORPORATION, OF 82, MECHANIC STREET, PAWCATUCK, CONNECTICUT, UNITED STATES OF AMERICA.

**Inventor** HARVEY NORMAN SEIGER.

Application No 1302/Cal/77 filed August 20, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta

#### 6 Claims

A method of forming a pressed nickel electrode comprising the steps of:

preparing a nickelous/cobaltous salt solution for addition to an oxidant/base solution to produce a salt/oxidant solution, by dissolving at least one nickelous salt and at least one cobaltous salt in water to provide a nickelous salt concentration in said salt/oxidant solution between about 0.17 molar and about 2 molar and a ratio of nickel to cobalt between about 9 : 1 and about 9.8 : 0.2,

preparing said oxidant/base solution by dissolving lithium hydroxide and an oxidizing agent in water to provide concentrations of said lithium hydroxide and oxidizing agent in said salt/oxidant solution between about 2 molar and about 6.5 molar and between about 0.34 molar and about 1 molar, respectively, slowly adding said nickelous/cobaltous salt solution with stirring to said oxidant/base solution to produce said salt/oxidant solution, whereby said NiOx are formed in said salt/oxidant solution and co-precipitated therefrom as a lithium containing black precipitate; recovering the lithium-containing NiOx/COOx co-precipitate from said salt/oxidant solution; drying said NiOx/COOx co-precipitate; admixing said dried NiOx co-precipitate with a binder; and

CLASS 14D\*

146271

Int. Cl. B01k 3/06

#### IMPROVED CONDUCTIVE DILUENT FOR PRESSED NICKEL ELECTRODES

**Applicant:** YARDNEY ELECTRIC CORPORATION, OF 82, MECHANIC STREET, PAWCATUCK, CONNECTICUT, UNITED STATES OF AMERICA.

**Inventor** RONALD GEORGE GUNTHER

Application No 1303/Cal/77 filed August 20, 1977

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta

#### 9 Claims

A pressed nickel electrode comprising: an apertured current collector, and a substantially homogeneous electrode admixture pressed into said apertured current collector and comprising an active electrode material, a binder, and a conductive diluent admixture consisting essentially of nickel flake and powdered carbon in amounts between about 4% and about 10% by weight and between about 5% and about 10% by weight, respectively, of the total weight of said active electrode material, said conductive diluent admixture, and said binder, said conductive diluent admixture being between about 10% and about 15% by weight of said total weight

CLASS 32A\*

146272

Int. Cl. C09b 3/02, 3/10

#### A PROCESS FOR THE PREPARATION OF NEW YELLOW BENZANTHRONYL TRIAZINE DISPERSE DYES FOR SYNTHETIC FIBRES

**Applicant:** COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-1, INDIA.

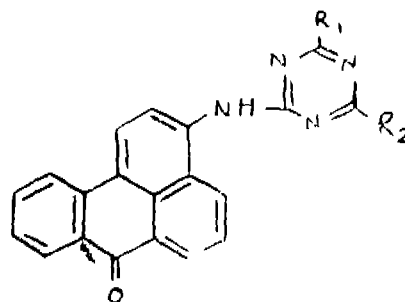
**Inventors:** NAGARAJ RAMANUJ AYYANGAR, RAJGOPAL JAGANNATH LAHOTI, AND DILIP RAGHUNATH, WAGIE

Application No 76/Del/77 filed April 16, 1977.

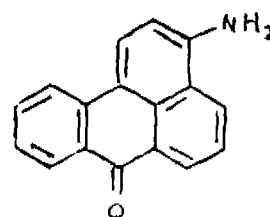
Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

#### 6 Claims

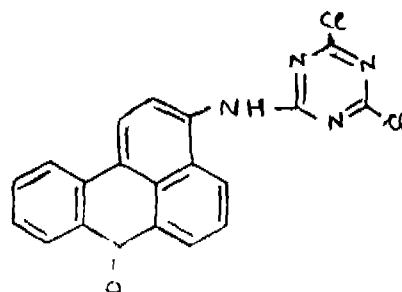
A process for the preparation of yellow benzanthranyl triazine disperse dyes for synthetic fibres of the general formula of Fig. A.



wherein R<sub>1</sub> and R<sub>2</sub> are methyl-amino, ethylamino, dimethylamino, diethylamino, 2-ethanolamino, n-butylamino, morpholino or piperidino groups by the reaction of corresponding 3-amino-benzanthrone of formula of Fig. B



with cyanuric chloride to obtain 2-(3-benzanthronylamino)-4, 6-dichloro-1, 3, 5-triazine (Fig. C)



followed by condensation of the reaction product with excess of amine of formula R<sub>1</sub>, R<sub>2</sub> NH wherein R<sub>1</sub> and R<sub>2</sub> are as defined above.

CLASS 107C & G

146273.

Int. Cl. F16j 9/00

#### METHOD AND APPARATUS FOR EFFECTING NEGATIVE POINT PROTRUSION OF A PISTON RING

**Applicant:** DANA CORPORATION, OF 4500 DORR STREET, CITY OF TOLEDO, STATE OF OHIO, UNITED STATES OF AMERICA.

**Inventor** RALPH EDWARD HARRIS

Application No. 2373/Cal/75 filed December 23, 1975.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta

#### 10 Claims

A method for effecting permanent negative point protrusion of a piston ring, said permanent negative point protrusion being effected by the step of electrically heating a portion of the inside surface of the ring on each side of the ring gap to an effective heating depth less than half the thickness of the ring, and to a temperature sufficient and for a period of time sufficient to cause the internal structure of the heated portion of the ring to yield under thermal compression



## CLASS 31C.

146274.

Int. Cl.-H05h 9/04.

(CAPACITOR).

*Applicant*: WESTINGHOUSE ELECTRIC CORPORATION, OF WESTINGHOUSE BUILDING, GATEWAY CENTER, PITTSBURGH, PENNSYLVANIA 15222, UNITED STATES OF AMERICA.

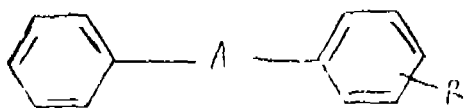
*Inventors*: LYON MANDELCORN, ROBERT LAWRENCE MILLER, GEORGE EDWARD MERCIER, JOHN HARVEY PICKETT AND THOMAS WENDELL DAKIN.

Application No. 522/Cal/77 filed April 7, 1977.

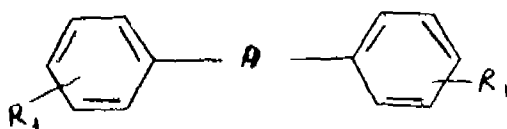
Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 15 Claims

A capacitor comprising layers of metal foil alternating with a dielectric spacer as defined hereinbefore impregnated with a dielectric fluid, said fluid comprising from 80 to 99% by weight of at least one mono-substituted biphenyl compound of the formula I.



wherein R is selected from alkyl from  $C_2$  to  $C_4$  and A represents  $-O-$ ,  $-CH_2-$  or simply a valency bond; and from 1 to 20% by weight of at least one di-substituted biphenyl compound of the formula II.



wherein each  $R_1$  which may be same or different is selected from alkyl from  $C_2$  to  $C_4$  and A represents  $-O-$ ,  $-CH_2-$  or simply a valency bond.

CLASS 32F<sup>b</sup>.

146275.

Int. Cl.-C07d 55/06.

## PROCESS FOR PREPARING CARBAMYLTRIAZOLE INSECTICIDES.

*Applicant*: GULF OIL CORPORATION, AT PITTSBURGH, PENNSYLVANIA, UNITED STATES OF AMERICA.

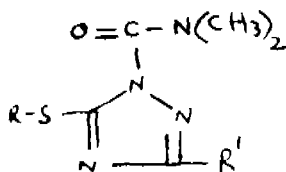
*Inventor*: JOEL LEE KIRKPATRICK.

Application No. 532/Cal/77 filed April 7, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 9 Claims

The process for preparing a compound having the structural formula shown in Fig. 2.



in which R is propynyl, allyl, 2-bromoallyl, 2-chloroallyl, 2-methylallyl, 1-methylallyl or 2, 3, 3-trichloroallyl when  $R'$  is propyl, cyclopropyl or 1-ethylpropyl or in which R is allyl, 1-methylallyl, 2-methylallyl or 2, 3, 3-trichloroallyl and  $R'$  is isopropyl, *tert.* butyl, propyl, cyclopropyl or 1-ethylpropyl

which comprises reacting a compound having the structural formula shown in Fig. 3



with dimethylcarbamyl chloride followed by reacting with dimethylamine.

CLASS 32F<sup>b</sup>.

146276.

Int. Cl.-C07d 55/06.

## PROCESS FOR PREPARING CARBAMYLTRIAZOLE INSECTICIDES.

*Applicant*: GULF OIL CORPORATION, AT PITTSBURGH, PENNSYLVANIA, UNITED STATES OF AMERICA.

*Inventor*: JOEL LEE KIRKPATRICK.

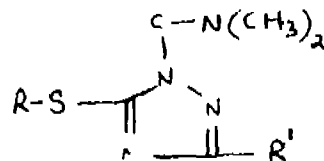
Application No. 105/Cal/78 filed January 28, 1978.

Division of Application No. 532/Cal/77 filed April 7, 1977.

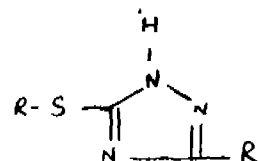
Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 11 Claims

A process for preparing a compound having the structural formula shown in Fig. 2.



in which R is propynyl, allyl, 2-bromoallyl, 2-chloroallyl, 2-methylallyl, 1-methylallyl or 2, 3, 3-trichloroallyl when  $R'$  is propyl, cyclopropyl or 1-ethylpropyl or in which R is allyl, 1-methylallyl, 2-methylallyl or 2, 3, 3-trichloroallyl and  $R'$  is isopropyl, *tert.* butyl, propyl, cyclopropyl or 1-ethylpropyl which comprises reacting a compound having the structural formula shown in Fig. 3.



with phosgene followed by reacting with dimethylamine.

CLASS 172D<sub>1</sub>.

146277.

Int. Cl.-B65h 54/38, D01h 13/12.

## SOLID STATE RIBBON BREAKING OR ANTI-PATTERNING DEVICE FOR CONE WINDING MACHINES USED IN TEXTILE INDUSTRY.

*Applicant & Inventor*: RAVINDRA BABURAO MARATHE, OF MARATHE ENGINEERING INDUSTRIES, INDUSTRIAL ESTATE, MIRAJ, DIST-SANGLI, MAHARASHTRA, INDIA.

Application No. 86/Bom/75 filed April 1, 1975.

Complete specification left July 1, 1976.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

## - 27 Claims

Solid state ribbon breaking or anti-patterning device for cone winding used in textile industry consisting a combination of (i) Astable-1; (ii) Astable-2; (iii) NOR gate; (iv) Amplifier; (v) Pulse Transformer; (vi) Solid State Switches; (vii) Power supply; (viii) Single Phase Preventor; and (ix) Emitter follower and connected in the manner indicated in the block schematic diagram of Figure-1 of the accompanying drawings.

CLASS 136C &amp; 144A.

146278.

Int. Cl. B32b 31/30.

## EXTRUSION HEAD.

*Applicant*: SAINT-GOBAIN INDUSTRIES, OF 62 BOULEVARD VICTOR HUGO, 92209 NEUILLY SUR-SEINE, FRANCE.

*Inventors*: RUDOLF PELZER AND HEINZ SCHOLL.

Application No. 474/Cal/77 filed March 29, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 15 Claims

An extrusion head for applying a layer of plastic material to a support surface movable relative to the head, comprising a nozzle having a slot terminating in an orifice through which the material may be extruded on to the support surface, a distribution duct of greater width than the slot extending along the full length of the slot to feed the plastic material to the slot, a blade for reducing the thickness of the extruded layer as the surface moves relative to the head and means for limiting the thickness of the material extruded on to the support surface.

CLASS 14A.

146279.

Int. Cl. H01m 35/00.

A NEGATIVE ELECTRODE FOR A NICKEL CADMIUM BATTERY CELL AND A METHOD FOR PRODUCING SUCH CELL.

*Applicant*: TRW INC., OF ONE SPACE PARK, REDONDO BEACH, CALIFORNIA 90278, UNITED STATES OF AMERICA.

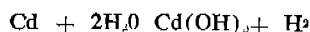
*Inventor*: PAUL FELIX RITTERMAN

Application No. 1438/Cal/77 filed September 23, 1977.

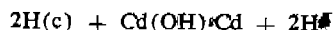
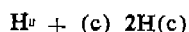
Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 9 Claims

A negative electrode for a nickel cadmium battery cell having a sealed casing containing positive and negative electrodes immersed in an electrolyte and wherein when the cell is in a state of positive limiting on discharge with all positive capacity exhausted, the total cell reaction occurs according to the equation



said negative electrode comprising: a support; cadmium on said support exposed to said electrolyte; and a catalyst on said support selected from the group comprising nickel, silver, carbon, platinum, and lattice defect bronze and exposed to said electrolyte, whereby hydrogen evolved in said cell state combines with the cadmium of the negative electrode according to the reaction



where (c) represents the catalyst.

## CLASS 37B.

146280.

Int. Cl. B28c 1/00.

NOZZLE TYPE CENTRIFUGAL MACHINE WITH IMPROVED SLURRY PUMPING CHAMBERS.

*Applicant*: DORR-OLIVER INCORPORATED, OF 77 HAVEMEYER LANE, STAMFORD, CONNECTICUT, UNITED STATES OF AMERICA.

*Inventors*: CHARLES ARTHUR WILLUS AND PER NYROP.

Application No. 324/Del/77 filed October 18, 1977.

Appropriate office for opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Delhi Branch.

## 21 Claims

A nozzle type centrifugal machine adapted for a two phase separation of a feed slurry into a nozzle discharge slurry and an overflow of separated liquid,

which comprises a rotor having a rotor bowl of double-conical configuration wherein the upper conical portion has a top opening at the narrow end providing an overflow for said separated liquid, wherein the inverted frusto-conical portion has a relatively wide bottom opening, and wherein a peripheral intermediate portion connects the wide ends of said conical portions, provided with discharge nozzles for said nozzle discharge slurry,

a hub member of hollow frusto-conical configuration, closing the bottom end of the rotor bowl, a rotor shaft rising from said hub member through said overflow opening, a spider member concentrically surrounding said shaft, and extending from said hub portion upward substantially to the level of said overflow, and having radial ribs presenting outer vertical edges, a stack of separating discs fitted over said vertical edges of the spider member and representing and inner separating zone, said ribs thus forming vertical channels for the separated liquid from said zone to flow upwardly to said overflow, said stack of discs and said intermediate portion of the rotor bowl defining between them an outer separating zone wherein concentrated material collects for delivery through said nozzles,

a set of vertical slurry feed pipes rising from the peripheral portions of said hub member, for delivering feed slurry to said stack of separating discs, said feed pipes being spaced evenly about the rotor axis,

a number of outwardly divergent return pipes equal to the number of said nozzles, and extending from the peripheral portion of said hub member into said outer separating zone for delivery of nozzle discharge slurry into said outer separating zone, said return pipes being spaced evenly about the rotor axis,

an upper annular partition member having a central feed opening coaxial with the rotor axis, and means for removably fastening said partition member to the underside of said hub member surrounded by a peripheral portion of said hub member, said partition members thus constituting with the hollow of said hub member an upper pumping chamber,

an annular bottom closure plate having a central feed opening coaxial with the rotor axis, means for removably fastening the peripheral portion of said closure plate to said peripheral portion of said hub member, said closure plate being spaced downwardly from said partition member so as to constitute therewith and with said peripheral portion of the hub member a lower pumping chamber,

first conduit means for supplying one respective slurry to said upper pumping chamber,

second conduit means for supplying the other respective slurry to said lower pumping chamber,

one set of pumping vanes provided in one of said pumping chambers, said vanes being cooperatively associated with said vertical slurry feed pipes communicating with said one pumping chamber, and shaped so as to deviate in the direction of rotation of the rotor, and thus imparting to the incoming

feed slurry outward acceleration, said vanes extending inwardly far enough to maintain delivery of separated liquid through the overflow,

complementary accelerator fins extending from the inner face of said hollow hub member radially inwardly, and in alignment with the outer ends of the pumping vanes, and constituting outward extension of said pumping vanes,

another set of pumping vanes provided in the other of said pumping chambers, said vanes being cooperatively associated with respective slurry return pipes communicating with said other pumping chamber, and shaped so as to deviate in the direction of rotation of the rotor, and thus imparting to the incoming return slurry outward acceleration, said vanes extending inwardly far enough to insure passage of said slurry through said divergent pipes, hydraulically balanced against the column of liquid reaching the top overflow,

and complementary accelerator fins extending from said peripheral portion of the hub member radially inwardly, and in alignment with respective outer ends of the pumping vanes.

#### OPPOSITION PROCEEDINGS

The opposition entered by Steelsworth Limited to the grant of a patent on application No. 144429 made by Chong Min Ho as notified in Part III, Section 2 of the Gazette of India dated the 18th November 1978 has been dismissed due to non-filing of the written statement of opposition within the prescribed time.

#### PATENTS SEALED

143801 143806 143818 143850 143870 143873 143877 143902  
143920 143927 143934 143961 143966 143971 143981 144074

#### COMMERCIAL WORKING OF PATENTED INVENTIONS.

##### LIST NO. 5

The following patents in the field of General & Mechanical Engineering Industry are not being commercially worked in India as admitted by the patentees in the statements filed by them under Section 146 (2) of the Patents Act, 1970 in respect of Calendar year 1977 generally to account of want of request for licences to work the patented inventions. Persons who are interested to commercially work the said patents may contact the patentee for grant of a licence for the purpose.

S. No.	Pat. No.	Date of Pat.	Name & Address of the Patent	Brief title of the invention.
1.	136764	16-6-1971	Dunlop Holdings Ltd, Dunlop House, Ryder Street, St James London, SW1, England	Treating deflated tyre
2.	136770	12-1-1973	Sulzer Brothers Ltd, Switzerland	Thread grippers for textile machines
3.	136782	3-12-71	U.S. Amada, 615, 8th Avenue South Seattle Washington USA	Punch Press
4.	136783	3-12-71	Do.	Do.
5.	136793	25-7-72	Westrex Co. Ltd, 152 Coles Green Road, Crickwood, London N.W. 2, England	Accessory apparatus for kinematograph projection apparatus
6.	136827	10-8-72	Dunlop Ltd, England	Tyre & wheel assemblies
7.	136839	29-9-72	Joseph Lucas (Electrical) Ltd, Well street, Birmingham, England	Friction welding apparatus
8.	136852	13-9-72	Snampregetti S.P.A. 16, Corso Vanezia, Milan, Italy	Production of continuous bicomponent bulky yarns
9.	136855	26-9-72	Dunlop Ltd, England	Pneumatic tyres
10.	136856	24-8-72	USS Engineers & Consultants Inc, 600 grant street, Pittsburgh, Pennsylvania, USA	Mechanism for removal of a roll rock in a continuous casting installation
11.	136873	13-10-72	C.A.V. Ltd, Well Street, Birmingham 19, England	Liquid fuel pumping apparatus
12.	136877	13-7-72	Glaverbel Mecaniver, 166 Chaussee De La Hulpe, Watermaellboits fort Belgium	Manufacture of sheet glass
13.	136902	19-3-73	Elkem Spiger Verket A/s Elkembuset Middle thusgate, 27, Oslo 3, Norway	Selective discharge of solid material from hoppers etc.
14.	136908	3-1-73	Schubert & Slazer etc Friedrich Ebertstrasse 84, 8070 Ingostadt, W. Germany	Continuously winding threads on tube
15.	136911	8-9-72	Deer & Co, Moline, Illinois USA	Hydraulic systems & attenuation of pressure pulsation in hydraulic circuits
16.	136923	21-8-72	USS Engineers & Consultants Inc, USA	Continuous casting of a partially solidified strand of a metal
17.	136959	8-5-73	Dr. C. Otto Comp. GMBH Postfach 1849/1850, 463 Bouchum W. Germany	Door for horizontal coking ovens
18.	136970	8-3-73	Ruti Machinery Works Ltd, Switzerland	Producing jet of fluid for inserting weft threads in a shed on a loom
19.	136993	9-7-73	Do.	Loom
20.	137015	13-10-72	Johnson & Johnson, 501 George Street, New Brunswick, Jersey USA	Tacky & pressure sensitive adhesive tape
21.	137020	31-1-73	Kabushiki Kaisha Yamada Juki 32-4-Ban, Kumanocho, Nishinomure city Hyogo, Prefacutures, Japan	Percussion apparatus
22.	137032	10-7-72	Maremont Corpn, 168 North Michigan Avenue, Chicago, Illinois, USA	Self leveling shock absorbers & fluid spring assist unit

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23.	137033	14-9-72	Adaan Waly Dogwood Lane, Stamford, Connecticut, USA	Reading device for a multiple image micro record
24.	137045	20-2-73	Elastic Rail Spike Co Ltd, 7 Rolls Bldg, Fitters Lane, London EC 4A, 1JB England	Tail fastening device for railway track assemblies
25.	137064	12-3-73	B.S. Gandhi, 17, Camac Street, Calcutta 17, India	A dial indicator holding device for use in machine & assembly shops
26.	137084	15-6-73	A.S. Deas Anciens Etablissements Paul Wurth, 32 Rue D'Alsace, Luxembourg	Drive & mounting mechanism for a blast furnace charge distribution apparatus
27.	137088	3-10-72	Dresser Industries Inc Republic National Bank Bldg, P. Box 718, Dallas Texas, 75227 USA	Condition responsive gauge instrument
28.	137091	15-12-72	Roger Paul Sonnevill, 5 Rue Maurice Ravel, 92, Seeint cloud, France	Reinforcing device
29.	137112	4-8-73	Ruti Machinery Works Ltd, 8630 Ruti, Zurich, Switzerland	Temple roller
30.	137140	2-7-73	National Institute of Design, Paldi, Ahmedabad-7 India.	Cycle
31.	137142	5-2-72	Joseph Lucas (Industries) Ltd, England	Control apparatus for an I-C engine fuel injection system.
32.	137159	23-10-72	G. Cortinovis, Via Imotorre Torr Boldone, (ergamo) Italy	Apparatus for reproducing relief image on solid bodies
33.	137162	17-3-73	S. A. Des Anciens Etablissement Paul Werth Luxembourg	Metering device for the control of the material flow when changing shaft furnaces
34.	137168	27-1-73	Jawa Narodni Podnik, Tyneec and Sazavou Czechoslovakia	Vehicle wheel
35.	137175	10-8-72	Dunlop House Ltd, England	Pneumatic tyres
36.	137183	4-10-72	Toolmasters Ltd, Cannayght Works, Uxbridge Raod Hillingdon Heaalth, Middlessex, England	Razor
37.	137184	4-10-72	Uddeholms Akt, Uddeholm, Sweden	Mettalurgical process
38.	137203	13-12-72	Alcan Research & Development Ltd, 1 Place Ville Marie, Montreal 101, Quebec, Canada	Forming pressure welded joints
39.	137209	20-10-72	The Lucas (Electrical ) Ltd, England	Braking system for vehicles
40.	137232	17-3-73	S.A. Des Anciens etc Luxembourg	Metering installations for shaft furnaces
41.	137243	15-12-72	August Benz, algierstrasse 70, Zufikon Switzerland	Device for holding operating tools at elevated heights
42.	137250	1-2-73	Emhannt Industries Inc, 426, Colt Highway Farm ngton Connecticut, USA	Article handling apparatus
43.	137255	28-11-72	Norton Co., 1 New Bond Street, Woreceter Massachusetts, USA	An abrasive wheel
44.	137262	13-2-73	Charles Weston & Co., Ltd, Duuglas Green, Pendleton, Salford M6 6FT, Lancs, England	Sealing rings
45.	137277	10-9-73	Ferro Cor pn, One Eric View Plaza, Cleveland, Ohio, USA	Continous production of glass fibre strand
46.	137284	8-3-73	Bennes Marrel, Rue Pierre Gopal, Saint-Etienne (Laire) France	Advancing support device for coal & ore extraction work
47.	137291	19-12-72	The Lucas (Electrical) Ltd, England	Spark ignition systems
48.	137294	13-12-72	Knoorr Bremse GMBH, 80 Musacher Strasse, 8, Munchen 13, FRG	Control valve or pressure air brake installation in railway vehicle
49.	137336	15-1-73	The Lucas Electrical Co Ltd, England	Cantrifugal mechanism
50.	137338	15-1-73	Do.	Ignition distributors
51.	137370	9-4-73	USS Engineers & Consultants Inc, 600 grant street, Pittsburgh, Pennsylvania, USA	sliding gate closure construction for bottom pour vessels
52.	137417	11-12-72	Dunlop Ltd, England	Pneumatic tyres
53.	137419	15-1-73	The Lucas (Electrical) Co. Ltd. England	Inginition distributors
54.	137496	10-10-72	IIindustan Lever Ltd, Bombay-20	Making an improved calf feed.
55.	137503	8-12-72	Rene Soum, Rue Jollimont 31, Toulouse, France	Linking means for linking pair of prefabricated concrete elements.

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56.	137720	23-5-73	Westinghouse Electric Corpn, Pittsburgh, Pennsylvania, USA	Thrust bearing assembly
57.	137765	19-12-72	Dunlop Holding Ltd, England	Pneumatic tyre & wheel assemblies
58.	137840	7-6-73	The carborundum Co., 1625, Buffalo Avenue Niagara Falls, N.Y. USA	Removing virus particles from fluids
59.	138441	11-8-72	Hoechst AG, FRG	Process for optical textile material,
60.	137844	3-1-73	Sulzer Brothers Ltd, Switzerland	Steam generating apparatus
61.	137855	5-1-73	Caterpillar Tractor Co., 110 N.E. Adams street, Peoria, Illinois, 61629, USA	Amounting assembly slidably supporting a track idler
62.	137891	29-12-72	The Fiberwove Corp, East Main street, Elkin, North Carolina, USA	Needled textile fabric
63.	137904	7-6-73	The Carborundem Co., USA	Water purification means
64.	137950	31-1-73	Westinghouse Electric Corp, USA	Measuring the flow velocity rate of a liquid
65.	137955	4-4-73	Caterpillar Tractor Co., USA	Underspeed valve hydrostatic control system
66.	138006	20-2-73	UOP Inc Ten UOP Plaza, Algonquim & Mt. Prospect Road, Des Plaines, Illinois, USA	Internally ridged heat transfer tube & method of designing for optimum
67.	138025	22-1-74	Imperial Chemical Industries Ltd, England	Explosive fuse cord.
68.	138044	12-1-73	UOP Inc, Ten UOP Plaza Algonquin & Mt. Prospect Road, Des plaines, Illinois, USA	Forming fins on tubes of difficult to roll metal
69.	138049	10-9-73	USS Engineers & Consultants Inc, 600 grant Street, Pittsburgh, Pennsylvania, USA	Apparatus for preventing strip accumulation
70.	138050	10-5-73	NL Industries Inc, 1221 Avenue of America N.Y.N.Y. 10020 USA	Making sintered unitary ceramic bodies & solid ceramic bodies made thereby
71.	138068	16-4-73	Sandvik Akt, Sandviken, Sweden	Cutting tool
72.	138073	7-12-73	Girling Ltd, Kings road, Tyseley, Birmingham 11, Warwickshire, England	Vehicle brakes
73.	138078	17-7-73	C.A. Norgeren Ltd, Campden Road, Shipston on stour, Warwickshire, England	Coupling fluid control components in fluid lines
74.	138113	4-7-73	Emhant Industries Inc, 426 Colt Hig way Framington, Connecticut, USA	Means for automatically reculating weight of articles in glassware forming machine
75.	138115	3-11-73	Ishikawajima Harima Jukogyo K.K. 2-1, Chome, Ote-Machi Chiyoda-Ku, Tokyo, Japan	Apparatus for making cement clinkers by burning raw material
76.	138113	7-10-72	Elkem-spiger Verket A/5 Elkemehuset Middlethunsgate 27, Oslo 3 Norway	Smelting process
77.	138192	20-2-73	Establisment Salgd, Vaduz, Liechtenstein	Explosive projectile
78.	138195	11-1-74	Westinghouse Air Brake Co., Pittsburgh, Pennsylvania, USA.	Blending valve device for combining fluid pressure & dynamic brakes
79.	138211	27-1-73	Dr. Michel J. O. Corner, 117 Mapte Road, Bala Gynwyd, Pennsylvania, Montgomery, USA	Breathing device for expanding the lungs
80.	138218	26-2-73	Cynamid India Ltd, Nyloc House, 254, Dr. Annie Besant Road, P. O. Box 9109, Bombay-25	Automatic washing of bottles or like container
81.	138245	18-3-74	ATIRA P. O. Polytechnic Ahmedabad 15, Gujarat, India.	Resin finishing of textiles
82.	138249	10-7-73	Ferranti Ltd, Hollindwood, Lancheshire.	An incertial guidance system for aircraft
83.	138253	29-5-72	Imperial Chemical Industries Ltd. & Rock Fallaco of Imperial chemical House, Millbank London, SW 1 & 2) of Deaton Road, Barrhead Glassglow Scotland	Cavities with fluent materials
84.	138261	16-3-73	James Brown & Sons Ltd, Commercial Street, Middlesbrough, Teesside TS 21 QA, England.	Components using cast in colling tubes
85.	138300	18-7-73	Westinghouse Electric Corp, Pittsburgh, Pennsylvania, USA	A fin and tube type heat exchanger assembly..
86.	138321	16-8-74	Girling Ltd, Kings Road, Tysley Birmingham 11, Warwickshire, England	Fluid pressure brake system

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87.	138326	16-10-73	Emhant Industries Inc, 426 Colt Highway, Farmington, Connecticut, USA	Cooling system for glass forming mold
88.	138343	1-2-74	Diamond Power Speciality Corp., U.S. Route 22 East, Lancaster, Ohio ? USA	Flexible power connection means for travelling elements
89.	138353	5-7-73	Comalco (J & S) Pvt. Ltd, 95, Collins Street, Melbourne, Victoria, C of Australia	Slotting strip material
90.	138370	25-5-74	Ferranti Ltd, Hollinwood, Lancashire, England	Apparatus for checking & connecting the heading alignment of an inertial platform carried by a vehicle.
91.	138377	3-3-73	Societe National Des Poudres Et Explosifs, 12, Quai Henri-IV 75181, Paris Cedex 04, France	Solid fuel rocket engine
92.	138378	12-3-73	Dunlop Ltd, Dunlop House, Ryder street, St James London SW 1, England	Pneumatic tyres & wheels assemblies
93.	138415	4-4-73	CSIR Rafi Marg, New Delhi-1, India	A device for sealing the bore hole for collection of gas samples & for the measurement of pressure of flow of gases from them.
94.	138469	3-1-74	Baignal & Farjon S.A. Rue Gerhard Mansen, Boulogne Sur Mer, Pas de Calais, France	Manufacture of moulded painted objects like writing object.
94.	138484	25-7-74	Oil & Natural Gas Commission, Tel Bhavan Dehra Dun (UP) India	Preparation of oil well cement clinker
95.	138530	2-3-73	USS Engineers & Consultants Inc, 600 Grant street, Pittsburgh Pennsylvania, USA	Variable speed directional control mechanism
96.	138534	11-1-73	FMC Corp 1105 Coleman Avenue Box 760, San Jose, California, USA	Mounting construction for clamping a machine element to a mounting surface
97.	138537	8-3-73	Thomas Williams Garlick, 4 Bloomsbury Square, London WC 1, England	Continuous casting
98.	138542	29-5-73	Fischer Gesellschaft MbH, 10-11, Griegasse, A-4910 Ried im Innkreis, Austria	Rocket & method for making it.
99.	138543	21-6-73	Heavy Engineering Corp., Ltd, Plant plaza Road, Ranchi-4, Bihar, India.	Wagon tippler for weighing system
100.	138550	17-1-73	Panfold Doors Inc, 10700 N.W. 36th Avenue, Miami, Florida 33167, USA	Extruded plastic folding door
101.	138582	10-4-73	Emhant Corp 426, Colt Highway, Farmington Connecticut, USA	Glassware forming machine
102.	138628	27-3-73	Dr. C Otto & Comp GMBH, Postfach 1849/1850, 463, Bochum W Germany	Regeneratively heated coke ovens
103.	138639	22-5-73	Societe Nationale Des Poudres Et Explosifs, France	Apparatus for machining the inside of large cylindrical bodies
104.	138654	18-4-74	Parks Cramer (GR-BR) Ltd, Sathero street, Oldham, Lancashire, England	Apparatus for collecting fiber waste from open end spinning machine
105.	138656	19-3-73	USS Engineers & Consultants Inc, 700 Grant street, Pittsburgh, Pennsylvania USA	Rolling mill mould
106.	138670	12-2-73	Robbins Incubator Co., 2555, South Santa Fe, Drive, Denver, Colorado, USA	Incubation apparatus for egg.
107.	138680	28-2-72	Vandervell Products Ltd, Nordon road, Maidenhead, Berkshire, England	Bearings of axels of railway vehicles
108.	138681	19-11-73	Caterpillar Tractor Co 100 N.E. Adams street, Peoria, Illinois 61629 USA	Flat track shoe with tapered end ribs
109.	138687	10-5-73	Techno chemie Kessler & Co, GMBH, D-6000, Frankfurt Am Main 90, Voitastrasse 71-75, FRG	Manufacturing a hose of synthetic material having a support coil
110.	138703	7-8-73	Dunlop Ltd, England	Apparatus for curing elongated articles
111.	138717	30-1-73	Caterpillar Tractor Co., USA	Pilot control valve
112.	138733	29-3-74	F.L. Smith & Co., A/5 77, Vigerslev Alle, Copenhagen, —valby, Denmark	Rotary drums with transmissionless drive
113.	138748	28-2-74	Snimprogetti S.p.a 16, Corso Venezia, Milan, Italy	A vehicle & apparatus suitable for performing construction maintenance or test function inside the pipeline
114.	138763	11-9-73	Chicago Pneumatic Tool Co., 6 East 44th street, New York, N.Y 10017, USA	Stall torque air shut off control for pneumatic nut runner

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115.	138775	12-10-73	Deere & Co., Moline, Illinois, USA	An agricultural machine
116.	138778	7-3-74	Maschinenfabrik Augsburg etc, Katwanger strasse 101 8500, Nurnburg 2 W Germany	Piston assembler
117.	138780	16-4-74	Girling Ltd, Kings Road, Tulseley, Birmingham 11, Warwickshire, England	Hydraulic braking system for vehicles
118.	138799	6-12-73	UOP Inc, Ten UOP Plaza, Algonquin & Mt. Prospect roads, Des Plaines, Illinois 60016, USA	Vehicle seats
119.	138802	3-3-73	Jacques Henry Mercier, 49, Rue de Naples, Paris (8eme) France	Pressure vessel
120.	138809	13-3-73	Dr. C. Otto & Comp gmbh Postfach 1849/ 1850, 463 Bochum, W. Germany	Hot blast stove
121.	138820	14-1-74	G.D. Società Per Azioni, Via Pompinalo, Bologna, Italy	Device for coordinating & feeding separately objects, particularly sweets similar to a wrapping machine
122.	138842	12-6-73	Emhant (U.K.) Ltd, Crompton Road, Wheatley Doncaster, Yorkshire, England	Valve block
123.	138876	22-5-74	Siemens AG, West Germany	Multiple plugs connector
124.	138897	2-2-73	Saint Gobain Industries 62 Blvd Victor Hugo, Neuilly-sur-seine, France	A composite constructional element for acoustic insulation
125.	138898	29-3-74	Werner Glatt, 7859 Haltingen, West Germany	Drying device for a rotary dragee making kettle
126.	138916	13-11-73	Rudgwick Brickworks Co. Ltd, Lynwick street, Rudgwick Sussex RH 12 23 DH, England	Manufacture of bricks
127.	138918	14-5-74	Schubert & Salzer etc, Friedrich Ebertstrasse 84, 8070 Ingeolstadt W Germany	A spinning machine
128.	138919	19-6-74	Do.	Open end spinning apparatus
129.	138926	12-3-73	Jacques Henry Mercier, 49 Rue de Naples, Paris (8eme) France	Pressure vessel
130.	138953	13-6-73	Canadia Jesuit Missions, 833 Broadview Avenue, Toronto, Ontario, Canada M4K 2p2	I-C engine using hydrogen as fuel
131.	138975	1-8-73	Aluminium Co of America Alcoa Bldg, Pittsburgh, Pennsylvania, USA	Digitally operable container closure method & apparatus for forming such closure
132.	138980	8-5-74	Hunt & Moscrop Ltd, Apex Works, Middleton Lancaster, England	Apparatus for corapping cylindrical objects
133.	138992	24-5-72	Westerwalder Eisonwerk etc. 5241, Weitefeld/Seig, FRC	Fluid tight transport container for flourable goods.

## REGISTRATION OF ASSIGNMENTS, LICENCES, ETC.

## (PATENTS)

Assignments, licences or other transactions affecting the interests of the original patentees have been registered in the following cases. The number of each case is followed by the names of the parties claiming interests :—

142529.—M/s. Createchnic Patent AG.

## RENEWAL FEES PAID

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#### CESSATION OF PATENTS

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